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Serial No. 09/658,275

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (Currently Amended):   A method of generating outputs in response to real world stimulation comprising:

capturing two or more simultaneous user inputs that are responsive to training stimulation;

synthesizing the captured user inputs;

generating a user memory model representation of the synthesized user inputs;

storing the generated model; and

using the stored model to generate output signals outputs in response to real-world stimulation.

Claim 2 (Currently Amended):   The method according to claim 1, further comprising:

using a forced choice interaction to generate one or more additional user inputs;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 3 (Original):   The method according to claim 1, wherein the model comprises a worldline of linked object diagram exemplars in an N-dimensional space.

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Claim 4 (Currently Amended):   The method according to claim 1, wherein

the real world stimulation comprises simultaneous <u>user</u> inputs that are compared to the
stored model, and

the <u>output signals</u> ~~outputs~~ are based on the results of the comparison.

Claim 5 (Currently Amended):   <u>The method according to claim 1, wherein the</u>
<u>method is performed at least partly in accordance with</u> A~~ computer-readable-medium-for-storing~~
computer-executable instructions <u>stored on a computer-readable medium</u> ~~for-performing-the~~
~~method-of-claim-1~~.

Claim 6 (Currently Amended):   <u>The method according to claim 1, wherein the</u>
<u>method is performed at least partly by a</u> [[A]] hardware processing engine ~~configured-to-perform~~
~~the-method-of-claim-1~~.

Claim 7 (Currently Amended):   <u>The method according to claim 1, wherein the</u>
<u>method is performed by at least partly by an</u> [[An]] application specific integrated circuit
~~configured-to-perform-the-method-of-claim-1~~.

Claim 8 (Currently Amended):   <u>The method according to claim 1, wherein the</u>
<u>method is performed at least partly by a</u> [[A]] netlist integrated into other integrated circuits ~~to~~
~~perform-the-method-of-claim-1~~.

Claim 9 (Currently Amended):   A method of generating outputs in response to
control command stimulation comprising:

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capturing two or more simultaneous user inputs that are responsive to training

stimulation;

synthesizing the captured user inputs;

generating a user memory model representation of the synthesized user inputs;

storing the generated model; and

using the stored model to generate output signals outputs in response to control command

stimulation.

Claim 10 (Original):   The method according to claim 9, further comprising:

using forced choice interaction to generate one or more additional user inputs;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 11 (Original):   The method according to claim 9, wherein the model comprises a

worldline of linked object diagram exemplars in an N-dimensional space.

Claim 12 (Currently Amended):   The method according to claim 9, wherein

the real world stimulation comprises simultaneous user inputs that are compared to the

stored model, and

the output signals outputs are based on the results of the comparison.

Claim 13 (Currently Amended):   The method according to claim 9, wherein the

method is performed at least partly in accordance with A computer-readable medium for storing

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computer-executable instructions <u>stored on a computer-readable medium</u> for performing the
method of claim 9.

Claim 14 (Currently Amended):   <u>The method according to claim 9, wherein the
method is performed at least partly by a</u> [[A]] hardware processing engine configured to perform
the method of claim 9.

Claim 15 (Currently Amended):   <u>The method according to claim 9, wherein the
method is performed at least partly by an</u> [[An]] application specific integrated circuit configured
to perform the method of claim 9.

Claim 16 (Currently Amended):   <u>The method according to claim 9, wherein the
method is performed at least partly by a</u> [[A]] netlist integrated into other integrated circuits to
perform the method of claim 9.

Claim 17 (Currently Amended):   A system for generating an outputs in response to
real world stimulation comprising:

input capture circuitry that captures two or more simultaneous <u>user</u> system inputs that are
responsive to training stimulation;

processing circuitry for synthesizing the captured <u>user</u> inputs and generating a <u>user
memory</u> model representation of the synthesized <u>user</u> inputs; and

a memory that stores the generated model; and

an output generator that uses the stored model to generate <u>output signals</u> outputs in
response to real world stimulation.

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Claim 18 (Currently Amended):   The system according to claim 17, wherein the input capture circuitry further captures one or more additional <u>user</u> inputs generated from a forced choice interaction and the additional <u>user</u> inputs are incorporated into the model.

Claim 19 (Previously Presented):   The system according to claim 17, wherein the model comprises a worldline of linked object diagram exemplars in an N-dimensional space.

Claim 20 (Currently Amended):   The system according to claim 17, wherein the real world stimulation comprises simultaneous <u>user</u> inputs that are compared to the stored model, and the <u>output signals</u> ~~outputs~~ are based on the results of the comparison.

Claim 21 (Original):   The system according to claim 17, wherein at least part of said system is implemented in a computer software program.

Claim 22 (Original):   The system according to claim 17, wherein at least part of said system is implemented as a hardware processing engine.

Claim 23 (Original):   The system according to claim 17, wherein at least part of said system is implemented as an application specific integrated circuit.

Claim 24 (Original):   The system according to claim 17, wherein at least part of said system is implemented as a net list integrated into other integrated circuits.

Claim 25 (Currently Amended):   A system for generating an output in response to control command stimulation comprising:

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input capture circuitry that captures two or more simultaneous user ~~system~~ inputs that are responsive to training stimulation;

processing circuitry for synthesizing the captured user inputs and generating a user memory model representation of the synthesized user inputs; and

a memory that stores the generated model; and

an output generator that uses the stored model to generate output signals ~~outputs~~ in response to control command stimulation.

Claim 26 (Original):   The system according to claim 25, wherein the input capture circuitry further captures one or more additional inputs generated from a forced choice interaction and the additional inputs are incorporated into the model.

Claim 27 (Previously Presented):   The system according to claim 25, wherein the model comprises a worldline of linked object diagram exemplars in an N-dimensional space.

Claim 28 (Currently Amended):   The system according to claim 25, wherein the real world stimulation comprises simultaneous inputs that are compared to the stored model, and the output signals ~~outputs~~ are based on the results of the comparison.

Claim 29 (Original):   The system according to claim 25, wherein at least part of said system is implemented in a computer software program.

Claim 30 (Original):   The system according to claim 25, wherein at least part of said system is implemented as a hardware processing engine.

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Claim 31 (Original):   The system according to claim 25, wherein at least part of said system is implemented as an application specific integrated circuit.

Claim 32 (Original):   The system according to claim 25, wherein at least part of said system is implemented as a net list integrated into other integrated circuits.

Claim 33 (Currently Amended):   A method of generating outputs in response to real world stimulation comprising:

capturing two or more simultaneous user inputs that are responsive to training stimulation;

synthesizing the captured user inputs through a dynamic, user memory model-based response generation from the captured user inputs with correlated congruence to two or more data input channels;

storing the model representation of the synthesis generation as mapped into an N-dimensional representation; and

using the stored model to generate output signals outputs in response to real world stimulation through temporally sensitive similarity matching.

Claim 34 (Previously Presented):   The method according to claim 33, further comprising:

using a forced choice interaction of dynamic temporal events to generate one or more additional simultaneous user inputs, which are physically/mentally linked pattern responses;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 35 (Currently Amended):   A method of generating outputs in response to real world stimulation comprising:

receiving two or more simultaneous inputs supplied by a user in response to training

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stimulation;

generating an N-dimensional object space representing a synthesis of the simultaneous user inputs, wherein the object space comprises a plurality of objects and object links between the objects;

mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the object space representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

generating output signals ~~outputs~~ in response to the comparing.

Claim 36 (Previously Presented):   The method according to claim 35, wherein the objects in the object space include objects of two or more different object classes.

Claim 37 (Previously Presented):   The method according to claim 36, wherein the object links comprise worldlines each connecting the objects of a respective one of the different classes.

Claim 38 (Previously Presented):   The method according to claim 36, wherein the different object classes correspond to different user training sessions.

Claim 39 (Previously Presented):   The method according to claim 35, wherein the object space is at least partially orthogonal.

Claim 40 (Previously Presented):   The method according to claim 35, wherein N>3.

Claim 41 (Previously Presented):   The method according to claim 35, wherein the N-dimensional space is mapped to the one or more M-dimensional sub-spaces using subspace projection operators.

Claim 42 (Previously Presented):   The method according to claim 41, wherein the

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subspace projection operators project densities to the M-dimensional space.

Claim 43 (Previously Presented):   The method according to claim 42, wherein the subspace projection operators project the densities onto axes of the object space model.

Claim 44 (Previously Presented):   The method according to claim 42, wherein the subspace projection operators include subspace projection operators for obtaining attribute densities.

Claim 45 (Previously Presented):   The method according to claim 42, wherein the subspace projection operators include subspace projection operators for obtaining object link densities.

Claim 46 (Previously Presented):   The method according to claim 35, wherein the object links comprise a worldline connecting the objects.

Claim 47 (Previously Presented):   The method according to claim 35, wherein the subsequently received simultaneous user inputs are provided in response to a forced choice interaction with the user.

Claim 48 (Currently Amended):   The method according to claim 35, wherein the method is performed at least partly in accordance with A storage medium for storing computer-executable instructions stored on a storage medium for performing the method of claim 1.

Claim 49 (Currently Amended):   The method according to claim 35, wherein the method is performed at least partly by a [[A]] hardware processing engine configured to perform the method of claim 35.

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Claim 50 (Currently Amended):   The method according to claim 35, wherein the method is performed at least partly by an [[An]] application specific integrated circuit ~~configured to perform the method of claim 35~~.

Claim 51 (Currently Amended):   The method according to claim 35, wherein the method is performed at least partly by a [[A]] netlist integrated into other integrated circuits ~~to perform the method of claim 35~~.

Claim 52 (Currently Amended):   A system for generating outputs in response to real world stimulation comprising:

inputs for receiving two or more simultaneous inputs supplied by a user in response to training stimulation;

storage for storing an N-dimensional object space representing a synthesis of the simultaneous user inputs, wherein the object space comprises a plurality of objects and object links between the objects;

a processing system for mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the object space representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

outputs for outputting output signals ~~outputs~~ based on the comparing.

Claim 53 (New):   The method according to claim 35, wherein the output signals comprise display signals.

Claim 54 (New):   The method according to claim 35, wherein the output signals comprise control signals.

Claim 55 (New):   The system according to claim 52, wherein the output signals comprise display signals.

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Claim 56 (New):   The system according to claim 52, wherein the output signals comprise control signals.

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